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ORD 4528-67
31 July 1967

MEMORANDUM FOR: DD/ORD

SUBJECT : NPIC - Dx and Rx

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1. In computer terms, NPIC's role is to initially label and file a huge data base presented in photographic form. They then enter, reformat and abstract from this data base in response to external queries. In other words, they perform tasks typical in a computerized question-answer system except that the complexity of the data, the difficulty of articulating the "algorithms" by which the interpreter sorts, restructures and outputs the data, and the "non uniformity" of many of the queries makes it difficult to examine NPIC as an information retrieval system. However, I believe it is a critically important task that should be done by or some other suitable group.

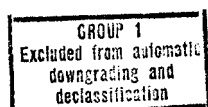
2. Related to the need for depicting in detail NPIC as an information retrieval system is the need to set criteria for suitability of equipment, for photographic image quality and for photointerpreter adequacy. These are being handled more or less by NPIC at present, but my own impression is that these, in isolation, will not improve the system significantly until the overall system is examined.

3. With respect to individual tasks now being handled, I would guess that improvements in glare-free Richardson tables, room illumination and interfaces between eyeball and equipment will be low-yield except perhaps to suggest to the interpreter that NPIC cares for his welfare. On the other hand, (1) the ability to see stereo over a reel rather than in chips and (2) quick retrieval and simultaneous presentation of antecedent and collateral information when the interpreter is faced with unfamiliar photography or non-typical queries may result in more significant improvement.

4. Training of personnel remains a difficult problem. However, all schemes suggested - from teaching machines to the use of the paired associates-method - seem even poorer than the method now being used.

5. With respect to improving motivation, would it be possible to permit the interpreters with prior interest in geology or oceanography, for example, to spend some small portion of their time examining photography related to their interest? Encouragement might also be given for them to alert the system about information not specifically requested, information related to agriculture, population changes, etc. rather than to specific military objectives.

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6. NPIC might be in the position to obtain more control of its own system were it to permit several of its people who have actually been interpreters and worked with the present system to become familiar with unusual sensors and electronic technology in order to detail an "ideal" system or, at least, a better system for collection, processing and outputting so that NPIC will not always be in the position of frantically patching a cumbersome system which is in chronic crisis.



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